



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/620,521	07/20/2000	Theodor Abels	964-001183	2919
28289	7590	10/19/2005	EXAMINER	
THE WEBB LAW FIRM, P.C. 700 KOPPERS BUILDING 436 SEVENTH AVENUE PITTSBURGH, PA 15219			TRAN, DALENA	
			ART UNIT	PAPER NUMBER
			3661	

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/620,521

Applicant(s)

ABELS ET AL.

Examiner

Dalena Tran

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5 and 7-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5 and 7-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Notice to Applicant(s)

1. This office action is response to the appeal brief filed on 8/25/04. The finality of the rejection of the last office action is withdrawn. Claims 1-3, 5, and 7-15 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1,3,5,7-8, 10-13, and 15 are rejected under 35 U.S.C.103(a) as being unpatentable over Avitan (6,050,770), in view of Griesenbrock (4,354,568).

As per claim 1, Avitan discloses an industrial truck, comprising: a plurality of wheels, a load lifting and a drive system (see column 5, lines 12-57; and column 6, lines 33-67), a stabilizing device configured to prevent tipping of the truck and comprising a plurality of wheel load sensors, each load sensor connected to an individual wheel and configured to measure a wheel load, and a monitoring device, wherein the load sensors are connected to the monitoring device which is configured to control or regulate at least one of the load lifting system and the drive system of the truck based on the wheel load sensor data (see the abstract; and columns 5-6, lines 13-67). Avitan does not explicitly disclose wheel load sensors, and integrated wheel load sensor. However, Avitan discloses in column 5, lines 64-65, "the load weights at each of the vehicle wheels 30,32,34 have been measured", therefore, it implies that there is a sensor to measure the load weight of the wheels, and this is the wheel load sensors. Integrated wheel load

Art Unit: 3661

sensor, as applicant described the summary of the invention in page 3, last paragraph of the appeal brief (8/25/04), figure 2, R1, R2, are wheel load sensors, also R1, R2 are integrated wheel load sensors. Therefore, it is obvious that integrated wheel load sensor just a wheel load sensor integrated into a vehicle wheel. Therefore, Avitan discloses in column 5, lines 64-65, "the load weights at each of the vehicle wheels 30,32,34 have been measured", it is obvious that there is a wheel load sensors integrated into vehicle wheels, so that the load weights at each of the vehicle wheels 30,32,34 have been measured.

Still in claim 1, Avitan does not disclose a speed of rotation sensor. However, Griesenbrock discloses wherein at least two wheels of the truck have a speed of rotation sensor connected to the monitoring device (see the abstract; columns 1-2, lines 54-12; column 2, lines 28-46; and columns 4-5, lines 52-51). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Avitan by combining integrated wheel load sensors for accurately determine vehicle wheel load preventing elevation of the load, and a speed of rotational sensor for effectively controlling the speed of the wheel to maintain stability for the vehicle.

As per claim 3, Avitan discloses wheel load sensors are provided on all the wheels of truck (see columns 5-6, lines 64-2).

As per claims 5 and 15, Avitan discloses the monitoring device includes an evaluation unit configured to determine at least one of transverse tipping forces, longitudinal tipping forces, tipping moments, and load weight (see the abstract; and columns 9-10, lines 49-8).

Art Unit: 3661

As per claim 7, Griesenbrock discloses each speed of rotation sensor is integrated into a wheel bearing (see the abstract; columns 1-2, lines 54-12; column 2, lines 28-46; and columns 4-5, lines 52-51).

As per claim 8, Avitan discloses the monitoring device includes an evaluation unit configured to measure the speed of the truck (see column 9, lines 3-48).

As per claim 10, Avitan discloses the industrial truck is a counterbalanced fork lift truck (see columns 2-3, lines 66-13).

As per claim 11, Avitan does not disclose two wheels with the speed of rotation sensors are located on the same axle. However, Griesenbrock discloses the two wheels with the speed of rotation sensors are located on the same axle (see the abstract; columns 1-2, lines 54-12; column 2, lines 28-46; and columns 4-5, lines 52-51). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Avitan by combining speed of rotation sensors are located on the same axle for stabilizing the truck lifting system.

As per claim 12, Avitan discloses the wheel load sensors are provided on all the wheels of the trucks (see columns 5-6, lines 64-2).

4. Claims 2,9, and 14, are rejected under 35 U.S.C.103(a) as being unpatentable over Avitan (6,050,770), and Griesenbrock (4,354,568) as applied to claim 1 above, and further in view of Yuki et al. (4,520,443).

As per claim 2, Avitan, and Griesenbrock do not disclose the monitoring device is connected with actuator units. However, Yuki et al. disclose the monitoring device is effectively connected with actuator units for at least one of inclination of a lifting mast, adjusting the height of a load, adjusting vehicle speed, adjusting vehicle acceleration, adjusting braking intensity, and

Art Unit: 3661

adjusting steering angle (see the abstract; and columns 6-7, lines 5-10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Avitan, and Griesenbrock by combining actuator units for at least one of inclination of a lifting mast, adjusting the height of a load, adjusting vehicle speed, adjusting vehicle acceleration, adjusting braking intensity, and adjusting steering angle for maintaining the vehicle in a stable state in accordance with the load weight and the load height during lifting or transportation of objects.

As per claim 9, Avitan, and Griesenbrock do not disclose the monitoring device is connected to a display unit. However, Yuki et al. disclose the monitoring device is connected to a display unit for displaying at least one of a load, a load moment, a truck speed, an acceleration, a turning radius, and tipping forces (see columns 5-6, lines 39-4; and columns 13-14, lines 32-28). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Avitan, and Griesenbrock by combining a display unit for displaying at least one of a load, a load moment, a truck speed, an acceleration, a turning radius, and tipping forces for helping an operator read a load weight or lifting condition of the truck, so the operator can easily piling and unloading the load at the predetermined position.

As per claim 14, Avitan discloses the monitoring device includes an evaluation unit configured to determine at least one of transverse tipping forces, longitudinal tipping forces, tipping moments, and load weight (see the abstract; and columns 9-10, lines 49-8).

Remarks

5. Applicant's argument filed on 8/25/04 have been fully considered. Upon updated search, the new ground of rejection as above.

Art Unit: 3661

Applicant's general argument about Avitan does not disclose the integrated wheel load sensors. However, as discuss in item 3, claim 1 above, Avitan discloses in column 5, lines 64-65, "the load weights at each of the vehicle wheels 30,32,34 have been measured", therefore, it is implies that there is a sensor to measure the load weight of the wheels, and this is the wheel load sensors. Integrated wheel load sensor, as applicant described the summary of the invention in page 3, last paragraph of the appeal brief (8/25/04), figure 2, R1, R2, are wheel load sensors, also R1, R2 are integrated wheel load sensors. Therefore, it is obvious that integrated wheel load sensor just a wheel load sensor integrated into a vehicle wheel. Therefore, Avitan discloses in column 5, lines 64-65, "the load weights at each of the vehicle wheels 30,32,34 have been measured", it is obvious that there is a wheel load sensors integrated into vehicle wheels, so that the load weights at each of the vehicle wheels 30,32,34 have been measured.

Also, Applicant's argument about Ahlbom does not disclose speed of rotational sensor. Ahlbom is no longer in this rejection. The new cited reference, Griesenbrock discloses a speed of rotation sensor as cited in item 3 above.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 571-272-6968. The examiner can normally be reached on M-F 6:30 AM-4:00 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thomas B. R.
PROPERTY OF
SUPERVISORY PATENT EXAMINER
GROUP 3600

/dt

October 16, 2005